Wallops Island Research Project
Log Book

7, June 2004, MMT

18:09:45Z
Radar is showing no echo.

19:08:14
Radar still showing little, however, small cell to west at azimuth of 280 degrees at about 90 km from the radar. dBZ of only 24.

20:08:11
Small cell has developed slightly and is now at about 300 degrees with dBZ values of 40. Not much larger in size though.

8, June 2004, MMT
17:52:36Z
Radar is showing nothing but clutter.

18:54:36
No change

10, June 2004 MMT
18:31:03Z
Small echo values of 25 dBZ just north of radar along the coast. Small cell to the west at 280 degrees with dBZ values of 40. South of radar is narrow line of low echo intensity.

19:46:52
Cell to the west is intensifying and is at 120 km at an azimuth of 280 degrees. dBZ values reaching 52. South of radar, echo is a little more intense. Line along the coast is moving eastward slightly.

20:34:35
Westward cell has lost intensity but is now joined by another to its north. dBZ values of new cell are at a high of 50. South cell is farther east and has intensified to dBZ values of 51, but is still small in terms of area coverage.

21:55:54
Scattered cells throughout screen. Most lie within the western half.

22:49:36
Cells have all intensified and clustered together better. All still within western half except a southern one that is stretching eastward. High dBZ values of 52.

23:49:36
Cells have moved SE and still remain at a nice intensity. Nearly half the screen has some sort of echo.

11,June, 2004 MMT
00:01:48Z
Western portion of screen is still active. (Continued from June 10) Intensities may be increasing slightly. Rain seems to be approaching radar.

1:01:36
Cluster of cells are losing intensity and occupy mostly the SW portion of screen. New echo north of radar at 110 km appeared with echo strength of 56 dBZ. Weaker cell ESE of radar seems to be developing.

14:27:10
Radar is showing little

15:31:36
No change

16:31:48
Two small cells SW of radar within 50 km. Another small cell just NW of radar closing in on the point target ring.

17:31:35
Previous cells are basically gone. Weak area NE at 40 degrees is showing.

14, June 2004 MMT
14:37:28Z
Not much showing….just some clutter areas

15, June 2004 MMT
2:43:28Z
Weak echos taking up most of NW portion of screen.

3:07:35
Screen is empty…..radar must not be scanning correctly

3:49:28
Weak echos now have moved westward and are still north of radar.

20:37:56
Light ring of echos beyond point target. May be Virginia Beach?

16, June 2004, MMT

1:49:36 Z
Radar is showing a dense region of precipitation West of NPOL with a range of about 110 km and an azimuth from 250 degrees to about 310 degrees.
Areas of light precipitation are extending to about 60 km within the radar site. High reflectivity values were on the order of 45 dBZ at about 280 degrees at a range of 110 km.

1:55:36
Region seems to be moving SE at about 1km/min as the cell is now at about 100 km from NPOL. Maximum reflectivity is still around 45 dBZ.

2:25:36
Areas of maximum precipitation seems to be weakening with reflectivity maximums at 40 dBZ. Center of cell is about 190 km away at an azimuth
of 280 degrees. Lighter precipitation areas are now 50 km away. Altogether, the shape and coverage area of the cell has remained the same.

3:07:58
An area with dBZ values of 10.8 have come to pass over NPOL. Cell is losing uniformity and is not progressing as quickly as before. Maximum
dBZ values are now 36 at a range of nearly 120 km and at an azimuth of 280 degrees. North and South of the cell is quickly becoming scattered
precipitation . Most of the coverage has dBZ levels of 24-35.

3:55:36
Currently over NPOL is a precipitation area of 13 dBZ. Cell has significantly

weakened and deteriorated from it's beginning stages. Cell has now moved SE to an azimuth of 230 degrees to 280 degrees at a range of 70 km. Areas of scattered precipitation surround this cell. Over the Chesapeake, west of NPOL, a broad area of light precipitation is occuring.

4:37:36
What remains of cells is heading south of NPOL with only light precipitation appearing over the radar.

15:32:06
Two smaller cells have now appeared, one NW of the radar and the other SW. The cell in the NW sector has an azimuth of 280 degrees to 320 degrees at a range of 50 km from the radar. Maximum dBZ levels in this cell are 38 dBZ. The cell SW of the radar has an azimuth of 220 degrees to 240 degrees at a range of 70 km from the radar. Maximum dBZ levels occuring 35 dBZ. Both cells are moving NE.

16:02:28
The northern most cell is appearing to start to break up, with reflectivities still in the range of 38dBZ in the center. The center is now at a range of 45 km of the radar. The southernmost cell, however, seems to be strengthening and converging together. A nice central location is showing reflectivities of 40 dBZ and is now at a range of 62 km.

17:02:28
Both cells are now weakening and showing signs of diminishing. Both are going to miss the radar, passing either north or south of it. The cell to the north is almost due North with the center at a range of 50 km with a small area of reflectivity of 36 dBZ. Southern cell is now at about 30 km with intensities of only 27 dBZ.

17:56:28
Southern most cell is not much to speak of, however, northern cell is still hanging in there. Now appears to be over the Wallops area and reflectivites are at a maximum of 38 dBZ. Cell is moving at about 10-15 m/s. At the far WSW of screen appears to be a line of new cells peaking in.

19:14:28
Northern and southern cells are now east of the coast are are quickly disippating. The line of cells that were previously peaking in have developed into a scattered region of 6 smaller cells. These are close-nit and are contained in an azimuth range of 225-290 degrees and are 110 km away. Maximum reflectivies acheive 48 dBZ status. Also at the very top of the NW sector, a few showers are appearing with intensities of 30 dBZ. Cells appear to be going ENE.

20:14:29
Group of cells west of the radar seem to be gathering together to form a broader region from 250-300 degrees. They have maximum reflectivies of 43 dBZ and are at a range of 75 km from the radar but cell extends to about 130 km. Cell is still moving ENE along with the northern cell. This cell is intensifying also with reflectivities 43 dBZ at a range of 135 km, but is moving very slowly.

21:08:36
The group of cells is still coming together and is starting to join with the northern cell. Together cells are forming a band from about 240-320 degrees with a nice echo at a range of 60 km from the radar with an azimuth of 300 degrees and a dBZ level of 45. The northern part of this band is experiencing reflectivity of 45 dBZ at an azimuth of 320 degrees and a range of 125 km. Cells are still moving eastward.

21:14:28

Last scan and there is little change

18, June 2004 MMT

2:43:40Z

NNE portion of screen covered with nice echos. Intensities peaking at 50. Small cell SE of radar.

3:43:36

Cells moving SE. Sneaking in the top is a nice cell reaching 54 dBZ. SE cell is gone.

4:43:35

Broad area of cells losing intensity. Small popcorn cells SE of radar.

5:43:36

Scattered cells now north of radar and around the eastern half. Cells to north or more impressive than southernly ones.

6:01:36

Intensities peaking slightly, still covering same amount of area. Last scan.

22, June 2004 MMT

16:15:10Z

Small, scattered cells SE of radar.

18:31:42

Ring of echos beyond lighthouse point target echo. Small cells in Southern 100km and beyond.

22:04:45

Nice line of echos approaching from NW sector. At a range of 115 km and azimuth of 315 degrees. dBZ level maximum of 49.

23:01:36

Cell in NW portion is picking up intensity and coverage area. dBZ level of 56 while now at a range of 75km at an azimuth of 330 degrees. South of radar is small, impressive cell and on western side is another peaking in.

23:55:35

Coverage area of larger cell is increasing but dBZ levels have dropped to a maximum of about 50. Southern, small cell has moved eastward and is less impressive. Western cell is weak.

23, June 2004 MMT

00:01:35Z

Large cell is still massive but losing intensity.

00:37:36

Large cell has moved eastward and is just slightly north of npol.

00:55:36

NPOL should be receiving rain.

1:31:36

WET ANTENNA case. Intensities dropped nearly 20 dBZ from scan just before. Antenna dried within next scan.

2:07:35

Cell is fizzling out NE of radar. South of radar is very narrow band of echos.

14:13:57
Not much going on. Cluster of 5 small cells in to the NW.

15:13:35
Little to nothing. Small cluster is basically gone.

16:13:35
To the NE at about 335 degrees and 140 km, there is a echo peaking in.

18:13:35
Left half of screen is scattered with a few, less-impressive cells. Most impressive ones are directly south of radar.

19:13:36
Impressive, smaller cells to SSW of radar. dBZ maximums at 48. North is covered lightly with low intensity echos.

20:13:36
Echos to SW are picking up intensity, while the northern portion is only strengthening little. Echos moving to east.

21:13:36
Cluster is coming together to cover nice area to SSW. Intensities not as strong.

22:13:35
Large area now covered with basically one large cell. NPOL soon to receive rain. dBZ levels at a maximum of 48 dBZ, but on the southern portion of cell.

22:55:36
A slight case of WET ANTENNA. Still a large area covered.

23:55:35
Cell is now south and east of radar.

24, June 2004 MMT
00:01:36Z
Cell continuing eastward movement. Losing intensity.

1:01:35
Remaining portion of cell occupies SSE edge of screen. Little there.

2:01:36
Not much has changed.

3:01:35
Just a few small echoes remaining

4:01:35
Remaining echoes continuously dying. Small echo to east of radar within 50 km. dBZ levels only reaching 18.

25, June 2004 MMT
16:13:58
West of radar is area of echoes with greatest intensity at about 150 km. Small cell south of radar at about 110 km.

17:13:36
Echoes west of radar are picking up intensity and covering a larger area. Max dBZ reaching 48. Southern cell is now 3 smaller cells.

18:13:35

Large area covered in western half, NPOL appears to be covered by rain. Didn't really notice any wet antenna.

18:49:35
Large area of echoes moving eastward. Half of screen must be covered. Southern echo is also intensifying. NPOL is covered.

19:01:36
Noticing a slight WET ANTENNA case. dBZ levels dropped about 10 dBZ. Still impressive size and intensity areas.

19:07:35
dBZ levels dropping further due to WET ANTENNA.

19:43:35
NPOL is covered with rain, echo is still large is coverage area with good intensity. Southern cell has moved farther eastward over the atlantic.

19:49:35
WET ANTENNA case. Dropped around 15 dBZ. Remains wet for next several scans

20:49:36
Antenna appears to be drying up a little as the cell has moved farther eastward. Still covers nearly half of the screen.

21:25:36
Antenna appears to be dry. Cell is off the coast now, but still large in mass.

22:25:36
Cell is almost off the screen. A small cell is appearing NW of radar at about 70 km at an azimuth of 325 degrees.

23:25:36
Southern portion of screen is showing echoes. Directly south shows the most impressive. They are at a range of nearly 100 km. Echo that was at 325 degrees is no longer there.

23:55:36
Southern echoes are moving northeast. Seem to be occupying a decent area.

26, June 2004 MMT
00:07:36Z
Same image as before however cell to SW seems to be closing in on NPOL.

00:55:36
Should be light rain over NPOL. Southern cell is moving eastward and isn't intensifying.

1:55:36
Far eastern half of scan is showing weak, scattered echoes except for a larger sized area which is more directly south of the radar.

2:55:36
Still scattered echoes with the stronger ones appearing more directly south and to the east.

3:31:35
Area around NPOL is covered with sporadic, scattered echoes. Intensities are weak and they seem to be moving NE.